

REMARKS/ARGUMENTS

Claims 1-4, 6 and 9-15 remain in this application. Claims 1, 2 – 4, 9, 11 and 12 have been amended. New claims 16 – 20 have been added. Claims 5, 7 and 8 have been withdrawn as a result of an earlier restriction requirement. In view of the Examiner's earlier restriction requirement, applicant retains the right to present claims 5, 7 and 8 in a divisional application.

1. Drawings

Applicants thank the Examiner for indicating in the accompanying form PTO-948 that the formal drawings previously submitted have been approved.

2. § 112 Rejections

The Examiner has rejected claims 1 – 4, 6, and 9 - 15 under 35 U.S.C. §112 second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which is regarded as the invention.

Applicants have amended claims 1, 3 and 4, and believe the amendments overcome the rejection.

3. § 102 Rejections

The Examiner has rejected claim 1 under 35 U.S.C. §102(b) as being anticipated by Elion (US Patent No. 4,473,599).

The Examiner asserts that Elion teaches Applicants' claimed invention, including, *inter alia*, inserting a glass rod into a glass tube, heating the glass rod and the glass tube, and flowing sodium and oxygen between the rod and the tube. The Examiner points to column 3, line 59 as support for flowing sodium and oxygen.

Applicants respectfully disagree and traverse the rejection.

At column 3, lines 56 – 62 Elion teaches that the reaction gases (the gases fed to the reaction zone) are subjected to a scrubbing step (step 32), which may consist of a sodium hydroxide vapor to liquid process. Elion is silent on what this process is, but Applicants presume the scrubbing step is a cleansing step for removing impurities from

the reaction gases. That is, the reaction gases are cleaned before being reacted. There is no teaching or other evidence that sodium hydroxide, or sodium in other form, is fed into the reaction zone (i.e. between the glass tube and the glass rod). Step 32 (Fig. 3) indicates that the gases proceeding to the coating step are scrubbed (“apply scrubbed gases”), implying in the past tense that the reaction gases are scrubbed prior to their introduction to the reaction zone.

The Examiner has rejected claims 1 – 4, 6, 9 – 10, and 12 – 14 under 35 U.S.C. §102(e) as being anticipated by DiGiovanni, et al (US Publication No. 2004/0031290).

Specifically, the Examiner asserts that the gas flowing between the tube and rod as disclosed by DiGiovanni inherently contains vaporized potassium.

While the soot body of DiGiovanni is soaked in a mixture including, for example, KOH, the soot body is inserted in a glass tube and then heated to about 700°C to “fully oxidize the dopants”, as described at paragraph [0042], such that the “dopants do not vaporize during subsequent processing”. Thus, in accordance with the method taught by DiGiovanni, no dopant vapor is formed at temperatures at least above 700°C. Indeed, there is no indication that vaporization takes place below 700°C according to the method of DiGiovanni, since clearly vaporization is undesirable (paragraph [0036] teaches further reaction with a liquid oxidizer if vaporization during subsequent heating is expected). The Examiner’s argument that the presence of vaporized dopant (e.g. potassium) is inherent directly contradicts the explicit teaching of the reference.

As disclosed at paragraph [0044] the soot body of DiGiovanni does not sinter until about 1300°C – 1400°C. Applicant’s amended claim makes clear that the glass rod initially inserted into the glass tube according to Applicants claim 1 is a consolidated glass rod, the meaning of “consolidated” being well known in the art – i.e. sintered or formed into a solid glass. Thus, DiGiovanni does not teach inserting a consolidated glass rod into a glass tube. Nor does DiGiovanni teach flowing a gas comprising oxygen and an alkali metal vapor between the consolidated rod and the tube, for the reason given above.

Applicants assert that amended claim 1 overcomes the Examiner's rejection, and that claim 1, and the claims that depend from claim 1, are therefore patentable over DiGiovanni.

4. § 103 Rejections

The Examiner has rejected claims 1 – 4, 6, and 9 - 14 under 35 U.S.C. § 103(a) as being unpatentable for obviousness over DiGiovanni, et al (US Publication No. 2004/0031290).

The Examiner asserts that in accordance with DiGiovanni, it would be obvious that potassium vapor is produced and swept away with oxygen. For at least the reasons provided above, Applicants disagree. DiGiovanni explicitly teaches that dopant vapors (e.g. potassium) are not produced, at least at temperatures where a consolidated (sintered) glass rod exists within a glass tube.

5. Information Disclosure Statement

Applicants have attached a new Information Disclosure form and submit a copy of the Japanese Patent and an EPO English abstract.

6. Conclusion

Based upon the above amendments, remarks, and papers of record, Applicants believe the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicants respectfully request reconsideration of the pending claims and a prompt Notice of Allowance thereon

Applicants believe that no extension of time is necessary to make this Reply timely. Should Applicants be in error, Applicants respectfully request that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorize the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

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Please direct any questions or comments to Kevin M. Able at 607-974-2637.

6/4/07

Date

CERTIFICATE OF TRANSMISSION
UNDER 37 C.F.R. § 1.8

I hereby certify that this paper and any papers referred to herein are being transmitted by US First Class mail to the U.S. Patent and Trademark Office at P.O. Box 1450, Alexandria, VA 22313-140 on:

6/4/07

Date

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